SMART COLOR® PRO

Color Scroller

APOLLO DESIGN™

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Introduction

Since 1992, Apollo Design Technology, Inc. has been one of the world's leading innovators, manufacturers and distributors of gobos, color filters, lights and related equipment and accessories for the lighting industry.

We are continually engineering new products to help you create and execute the designs of your dreams for theaters, bands, advertising, touring companies, television, motion pictures, museums, retail and architecture.

Apollo Design is recognized for creating innovative and award-winning products of superior quality and value. Focused on you, our goal is to ensure unparalleled support from the initial conversation to after sales service.

Our lighting experts and engineers will consult with you on ways to use our standard products or engineer custom solutions. Allow your imagination to run free. Let the Apollo Design team help you create the lighting design you only imagined.
There is virtually no limit to what we can do together.

Joel Nichols, Owner/CEO
Apollo Design Technology

Product Description

Congratulations on the purchase of your new Smart Color® Pro scroller. The Smart Color® Pro is one of the most cost-effective, dependable and user-friendly scrollers available on the market. The scroller uses standard or custom gel strings of 18-24 frames to give you amazing color flexibility.

Safety Information

CAUTION! This symbol designates an item that will cause damage to the Smart Color® Pro if ignored.

WARNING! This symbol designates an item that could cause injury or death if ignored.

- Be sure to read and understand all instructions in this manual.
- The Smart Color® Pro is designed for indoor applications and should not be exposed to moisture.
- There is a risk of fire, shock or injury if the Smart Color® Pro is not used as specified.
- Servicing the Smart Color® Pro should be undertaken by qualified personnel only.
- The Smart Color® Pro is not intended for residential use.
- Safety cables must be used when installing the Smart Color® Pro. Apollo is not responsible for damage or injury resulting from improper use of safety cables.

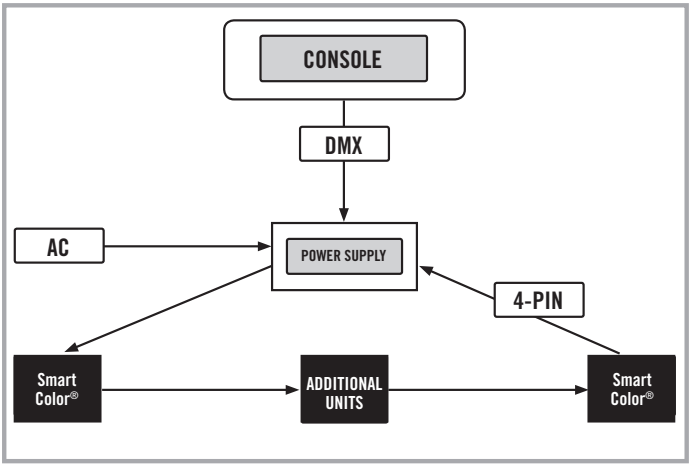
Quick Start

Connect DMX source to an Apollo Smart Power™ supply or compatible unit.

Wybron Coloram II or Wybron IT power supplies are not compatible and cannot be used. Serious damage to the Smart Color® Pro will occur if these power supplies are used. Damage caused by an incompatible power supply is not covered by the warranty.

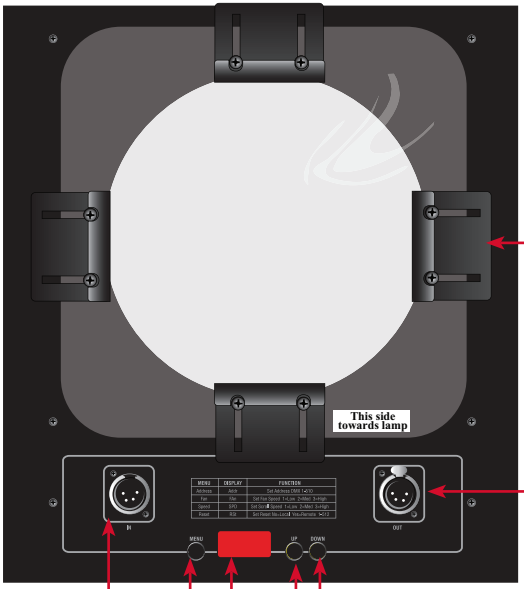
Do not apply power to a lighting fixture without first powering up the Smart Color® Pro. Heat from the lighting fixture will cause damage to the Smart Color® Pro and the gel string.

- Connect 4-pin scroller cable from the power supply to the first Smart Color® Pro. Continue connecting up to eight Smart Color® Pros on a 200 watt circuit.
- Connect the last Smart Color® Pro to the power supply.
- Plug the power supply in to the appropriate line voltage.
- The Smart Color® Pros will complete a homing sequence.
- Address each Smart Color® Pro to a valid DMX value between 001 and 510. Remember, the Smart Color® Pro requires 2 DMX channels if fan speed is set to 'PL1.'
- Check for control of the Smart Color® Pro from the lighting console.



CONTROLS and INDICATORS

Back of
Smart Color® Pro



Mounting Tab (4)

XLR 4-Pin Output

XLR 4-Pin Input

Select Button

Display Window

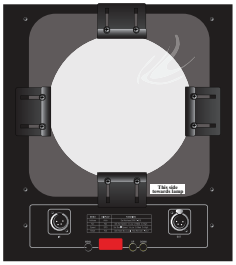
Down Button

Up Button

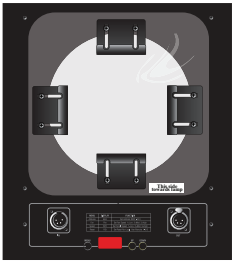
Using the Smart Color® Pro

MOUNTING

Adjust the 4 mounting tabs to fit the gel frame brackets on the lighting fixture.



Brackets set for maximum frame



Brackets set for minimum frame

- Brackets on the Smart Color® Pro 5.25 adjust from 4¼" to 6¼" (108mm x 158mm)
- Brackets on the Smart Color® Pro 7.25 adjust from 6¼" to 7½" (158mm x 190mm)
- Brackets on the Smart Color® Pro 10 adjust from 7½" to 10¼" (190mm x 260mm)

A safety cable is provided with each Smart Color® Pro. Attach the safety cable to a pipe or truss.

Do not apply power to a lighting fixture without first powering up the Smart Color® Pro. Heat from the lighting fixture will cause damage to the Smart Color® Pro and the gel strings.

POWERING UP

- Use only Apollo cable or other approved cable. Approved cable should have two conductors of 14 AWG wire for power and two shielded and twisted conductors of 22 AWG wire for data.

Pin "OUT" for the 4-pin connector:

Pin 1 = 24 volts DC Ground (-)
Pin 2 = DMX data (-)
Pin 3 = DMX data (+)
Pin 4 = 24 volts DC (+)

- Insert a 4-pin XLR connector into the plug on the Smart Color® Pro marked “IN”. Additional Smart Color® Pros, Smart Color® or Smart Move® products can be daisy chained together using the “OUT” plug.
- Apply power and DMX signal to the Smart Color® Pro. A short homing sequence will occur, running the gel string from end to end. The fan will run at full speed during homing.
- The Smart Color® Pro has finished homing when frame #1 of the gel string is parked in the aperture.
- If a valid DMX signal is present, the LED display will show the DMX address at a steady brightness. If DMX is not present, the LED display will flash.

Menu Tree

ADDRESSING

ADDRESS “Addr”

- DMX address up
- DMX address down

FAN “FAn”

“=_1_” Low speed fan

“=–2–” Medium speed fan

“=¯3¯” High speed fan

“=PL1” Sets DMX fan speed control to start address +1

“=512” Sets DMX fan speed control to channel 512

Speed “SPd”

“=_1_” Sets motor speed to low

“=–2–” Sets motor speed to medium

“=¯3¯” Sets motor speed to high

Reset “rSt”

“=NO” Remote reset is off

“=YES” Allows for Smart Color® Pro reset from console

Enter DMX address for reset control

- Each Smart Color® Pro can respond to a unique start address. To change the DMX address press the SELECT, UP or DOWN button once. “Addr” will appear. Press SELECT to select the addressing mode. Pushing the UP and DOWN buttons will step through DMX addresses. The addresses advance slowly for the first three seconds, then the DMX addresses advance or retreat at a much faster rate.
- After the desired DMX start address appears in the LED window, press SELECT to set the address.
- TheSmart Color® Pro is a two channel device if fan speed is set to “PL1.” The first channel controls the gel string and the second channel controls the fan speed.
- The LED display will show “Addr” when the addressing sequence is complete.

Menu Tree

FAN

- To change the fan speed press the SELECT, UP or DOWN button once. Press the DOWN button once. “FAn” will appear. Press the SELECT button to select fan control mode.
- Press the UP or DOWN button to scroll through the fan options.
- Selecting “=_1_” will set the fan to run constantly at low speed. Use this setting when the Smart Color® Pro is being used with low wattage fixtures or in situations requiring quiet operation.
- Selecting “=–2–” will set the fan to run constantly at medium speed.
- Selecting “=¯3¯” will set the fan to run constantly at high speed. Use this setting when the Smart Color® Pro is being used on high wattage fixtures or when maximum cooling is required.
- Selecting “= PL1” will set the fan to be controlled at the Smart Color® Pro's DMX start address plus 1. For example, if the start address for the Smart Color® Pro is channel 001, the fan will be controlled by channel 002. With the fader for channel 002 at 100% the fan will operate low speed.
- Selecting “= 512” will set the fan to be controlled by DMX channel 512. Again, with the fader at 0% the fan will operate at high speed. With the fader at 100% the fan will operate at low speed.
- Press the SELECT button to set fan speed.

SPEED

- To change the motor speed press the SELECT, UP or DOWN button once. Press the DOWN button twice. “SPd “ will appear. Press the SELECT button to select speed control mode.
- Press the UP or DOWN button to scroll through the speed options.
- Selecting “=_1_” will set the motor to run at low speed. Use this setting when the Smart Color® Pro is being used in situations requiring quiet operation.
- Selecting “=–2–“ will set the motor to run at medium speed.
- Selecting “=¯3¯” will set the motor to run at high speed. Use this setting when the Smart Color® Pro is being used in situations requiring fast operation.
- Press the “SELECT” button to set motor speed.

Menu Tree

RESET

- To set the remote reset function press the SELECT, UP or DOWN button once. Press the DOWN button three times. “rSt ” will appear.
- With “rSt “ in the display press the SELECT button.
- Press the UP or DOWN button to scroll through the reset options.
- Select “=NO “ when remote reset of the Smart Color® Pro is not required.
- Select “=YES” when remote reset is required.
- With “=YES” in the display press the SELECT button.
- “When “=000” appears in the display window press UP or DOWN button to scroll to a valid DMX address chosen to control remote reset. Press SELECT button to set reset address. When this DMX channel is at 100% for more than 1 second, the Smart Color® Pro will reset.
- Be sure that the remote reset address does not duplicate any other active DMX address in your system.

Factory Defaults

- Factory default setting for the DMX address is “=001”.
- Factory default setting for fan speed is “=‾3‾”, high.
- Factory default setting for the gel string speed is “=‾3‾”, high.
- Factory default setting for remote reset is “=NO”.
- Factory default address for remote reset is “=000”.

Gel String Information

- For best accuracy, place console output in 16 bit mode, output values DMX 0-255. Console output in percent results in less resolution, and some position shift.
- These values are derived from a Smart Color® Pro 7.25 with a new gel string. Actual values required may vary based on gel string age and condition. Smart Color® Pro 5.25 and Smart Color® Pro 10 scroller values should be very close to these values but may require minor adjustments.

18 FRAMES

Frame Position	DMX Value 0-255	Console Value %	Theater Gel String	Rock' N Roll Gel String
1	0	0	Clear	Clear
2	016	7	AP6300 Neon Yellow	AP6400 Pilsner Yellow
3	032	13	AP7150 Santa Fe Amber	AP7600 Apollo Orange
4	047	19	AP7650 Coral Amber	AP7450 Golden Amber
5	062	25	AP7550 Spiced Rum Amber	AP8300 Diva Red
6	076	31	AP7600 Apollo Orange	AP8350 Bludgeon Red
7	091	36	AP8250 Vixen Red	AP8750 Hot Pink
8	106	42	AP8450 Spanked Pink	AP3150 Sour Grape
9	120	47	AP8750 Hot Pink	AP3700 Groovy Grape
10	134	53	AP3250 Dominant Lavender	AP3900 Voodoo Lavender
11	148	59	AP3700 Groovy Grape	AP4450 Heavenly Blue
12	163	64	AP4800 Ice Blue	AP4250 Apollo Blue
13	178	70	AP4450 Heavenly Blue	AP4200 Bright Blue
14	193	76	AP4400 After Hours Blue	AP4950 Caribbean Blue
15	208	82	AP5960 Margarita Green	AP5500 Neptune Blue Green
16	223	88	AP5500 Neptune Blue Green	AP5400 Rock' N Roll Green
17	239	94	AP2000 Apollo Blue Full CTB	AP4300 London Blue
18	255	100	AP7630 Peach My Interest	AP6200 Banana Yellow

24 FRAMES

Frame Position	DMX Value 0-255	Console Value %
1	0	0
2	012	5
3	024	10
4	036	14
5	047	19
6	058	23
7	069	28
8	080	32
9	091	36
10	101	40
11	112	44
12	122	48
13	133	52
14	143	57
15	153	61
16	164	65
17	175	69
18	186	73
19	197	78
20	208	82
21	220	87
22	232	91
23	244	96
24	255	100

All 24 frame gel strings are custom or the Smart Color® Pro 5.25 and Smart Color® Pro 7.25. The Smart Color® Pro 10 cannot accept a 24 frame gel string.

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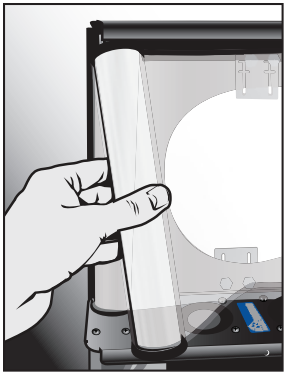
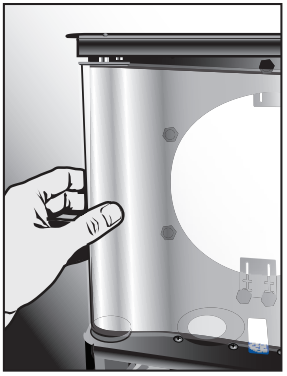
Gel String Installation





The Smart Color® Pro has been designed for easy installation and removal of gel string assembly. The front cover has been removed for clarity. The front cover should be in place during the installation process.

- Place the gel string and two gel rollers inside the Smart Color® Pro.
- Line up the left roller with the top guide pin. Push the gel roller toward the top of the Smart Color® Pro.
- Swing the bottom of the gel roller towards the hub drive.
- Line up the bottom of the gel roller over the hub drive.
- Rotate the hub drive until the pin seats fully in the bottom of the gel roller.
- Repeat the process for the right gel roller.

GEL FRAME DIMENSIONS (WxH)

Smart Color® Pro 5.25

Exterior Frames: 15" x 6.025" (381mm x 153mm)

Interior Frames: 12" x 6.025: (305mm x 153mm)

Smart Color® Pro 7.25

Exterior Frames: 15" x 8" (381mm x 203mm)

Interior Frames: 13" x 8" (330mmx 203mm)

Smart Color® Pro 10

Exterior Frames: 19" x 10.75" (483mmx 273mm)

Interior Frames: 16" x 10.75" (406mm x 273mm)

- Apollo Gel Shield is installed on the back of the Smart Color® Pro. The shield filters out harmful ultraviolet and infrared rays that could damage the gel strings. Be sure the shield is in place before operating the Smart Color® Pro.

Troubleshooting

Symptom	Cause	Solution
Smart Color® Pro fails to start and home	No power from power supply	• Verify that the power supply is on • Verify that 4-pin cable is valid cable and pin out is compatible
Smart Color® Pro fails to respond to DMX	DMX is not present or is not valid. The LED display will flash from dim to bright	• Verify that 4-pin cable is valid cable and pin out is compatible. • If there is a known operating DMX device in the system, set the Smart Color® Pro to this address. Run a cue to see if the PRO responds
Smart Color® Pro operates erratically	Faulty DMX	• Install return cable from last Smart Color® Pro to power supply • Install 5-pin DMX terminator on last DMX device
Smart Color® Pro resets intermittently	Insufficient power	• Check console programming for invalid information on reset channel • Too many Smart Color® Pros on one 4-pin XLR circuit. Reduce number to a maximum of 8 • Install return cable from last Smart Color® Pro to power supply
Gel frames won't center in aperture	Worn gel string	• Replace gel string • Adjust console or channel output to center frames.
Gel frames won't travel to ends	Worn gel string	• Replace gel string • Make sure console is set to 100% to reach last frame
Gel frames won't travel to ends	Worn gel string	• Check to see if gel strings are old and heat damaged. Replace Gel String.
Display flashes "Err"	Gel string jammed	• Verify that gel rollers are fully seated on drive hubs • Verify that gel string is properly wound onto gel rollers

Smart Color® Pro 5.25 Specifications

DESIGN	
Fixture Compatibility	Ideal with 19° ellipsoidals and 6 inch and smaller fresnels
Power Supply Compatibility	Apollo Smart Power™ 75W, 200W and 400W
Dimensions (HxWxD)	10¾" x 9¾" x 3½" (273.05mm x 247.65mm x 88.9mm) With mounting tabs: 3½" (88.9mm) deep
Material / Color	Lightweight aluminum, black or white powder coat
Weight	4.78 lbs. / 2.17kg. including gel and mounting tabs
Aperture	Rear: 5¼" (133.35mm) Front: 5¼"H x 5¼"W (133.35mm x 133.35mm)
Mounting System	Comes with adjustable tabs between 4¼" and 6¼" (108mm x 158mm)
Ports	4-pin XLR ports on back of unit for easy access and daisy chain capability
Heat Deflectors	Apollo Gel Shield
Safety Cable	Yes

OPERATIONAL	
Gel String Capability	18 color frames (standard or custom); 2-24 frames (custom only)
Gel String Loading	Spring loaded / self tensioning
Cooling System	Variable speed, single fan with local or remote speed control
Gel String Max. Speed	6 sec., 18 frames; 7 sec., 24 frames
Address	LED display up to 510
Power Requirement	24VDC
Power Consumption	1.1 AMPS / 26 watts at 24VDC (fan & speed high)
DMX Channels Required	Two
Protocol Requirements	DMX 512 (1990)
Input Connector	XLR 4-pin male (power and control protocol)
Output Connector	XLR 4-pin female (power and control protocol)
LED Indicators	For menu

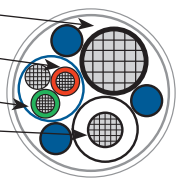
Pin 1: 0 Volts DC (14 Gauge)

Pin 2: Negative Data (22 Gauge)

Pin 3: Positive Data (22 Gauge)

Pin 4: Positive 24 Volts DC (14 Gauge)

Chassis: Ground Bounding (24 Gauge)



Product specifications shown are subject to change without notice.

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Smart Color® Pro 7.25 Specifications

DESIGN	
Fixture Compatibility	Ideal with 19° - 90° ellipsoidals, fresnels and PARs
Power Supply Compatibility	Apollo Smart Power™ 75W, 200W and 400W
Dimensions (HxWxD)	12¾" x 11¾" x 2¾" (323.85mm x 298mm x 69.85mm) With mounting tabs: 3½" (88.9mm) deep
Material / Color	Lightweight aluminum, black or white powder coat
Weight	5.2 lbs. / 2.36 kg. including gel and mounting tabs
Aperture	Rear: 7¼" (184.15mm) Front: 7¼" H x 8" W (184.15mm x 203.2mm)
Mounting System	Comes with adjustable tabs between 6¼" and 7½" (158mm x 190mm)
Ports	4-pin XLR ports on back of unit for easy access and daisy chain capability
Heat Deflectors	Apollo Gel Shield
Safety Cable	Yes

OPERATIONAL	
Gel String Capability	18 color frames (standard or custom); 24 frames (custom only)
Gel String Loading	Spring loaded / self tensioning
Cooling System	Variable speed, single fan with local or remote speed control
Gel String Max. Speed	6 sec., 18 frames; 7 sec., 24 frames
Address	LED display up to 510
Power Requirement	24VDC
Power Consumption	1.1 AMPS / 26 watts at 24VDC (fan & speed high)
DMX Channels Required	Two
Protocol Requirements	DMX 512 (1990)
Input Connector	XLR 4-pin male (power and control protocol)
Output Connector	XLR 4-pin female (power and control protocol)
LED Indicators	For menu

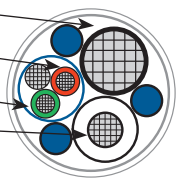
Pin 1: 0 Volts DC (14 Gauge)

Pin 2: Negative Data (22 Gauge)

Pin 3: Positive Data (22 Gauge)

Pin 4: Positive 24 Volts DC (14 Gauge)

Chassis: Ground Bounding (24 Gauge)



Product specifications shown are subject to change without notice.

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Smart Color® Pro 10 Specifications

DESIGN	
Fixture Compatibility	Ideal with fresnels and PARs
Power Supply Compatibility	Apollo Smart Power™ 75W, 200W and 400W
Dimensions (HxWxD)	15½" x 14½" x 3½" (393.7mm x 368.3mm x 88.9mm) With mounting tabs: 3½" (88.9mm) deep
Material / Color	Lightweight aluminum, black or white powder coat
Weight	6.46 lbs. / 2.93 kg. including gel and mounting tabs
Aperture	Rear: 10" (254mm) Front: 10"H x 10¾"W (254mm x 273.05mm)
Mounting System	Comes with adjustable tabs between 7½"and 10¼" (190mm x 260mm)
Ports	4-pin XLR ports on back of unit for easy access and daisy chain capability
Heat Deflectors	Apollo Gel Shield
Safety Cable	Yes

OPERATIONAL	
Gel String Capability	18 color frames
Gel String Loading	Spring loaded / self tensioning
Cooling System	Variable speed, single fan with local or remote speed control
Gel String Max. Speed	6 sec., 18 frames
Address	LED display up to 510
Power Requirement	24VDC
Power Consumption	1.1 AMPS / 26 watts at 24VDC (fan & speed high)
DMX Channels Required	Two
Protocol Requirements	DMX 512 (1990)
Input Connector	XLR 4-pin male (power and control protocol)
Output Connector	XLR 4-pin female (power and control protocol)
LED Indicators	For menu

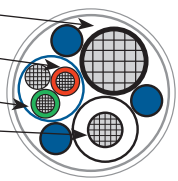
Pin 1: 0 Volts DC (14 Gauge)

Pin 2: Negative Data (22 Gauge)

Pin 3: Positive Data (22 Gauge)

Pin 4: Positive 24 Volts DC (14 Gauge)

Chassis: Ground Bounding (24 Gauge)



Product specifications shown are subject to change without notice.

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Warranty

- Items are covered for defects in materials and workmanship for one year, including repair parts and repair labor on defective item, from date of the manufacturer invoice.
- The warranty covers freight for 30 days after initial purchase.
- The manufacturer does not cover any other loss resulting from product failure.
- Products being returned for warranty repair must display the original serial number. Removal of the serial number voids the product's limited warranty.
- Despite the care taken for the compilation of this manual, Apollo Design Technology, Inc. cannot be held responsible for any damages resulting from errors that may appear in this manual. All efforts have been made to provide the most accurate, up-to-date instructions and illustrations possible.
- Gel strings are not included in this 2-year warranty.

Serial Number	
Date Purchased	
Purchased From	

SMART COLOR® PRO

Color Scroller

Apollo Design Technology, Inc.
260.497.9191
ApolloDesign.net

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